THE PULSE - 6

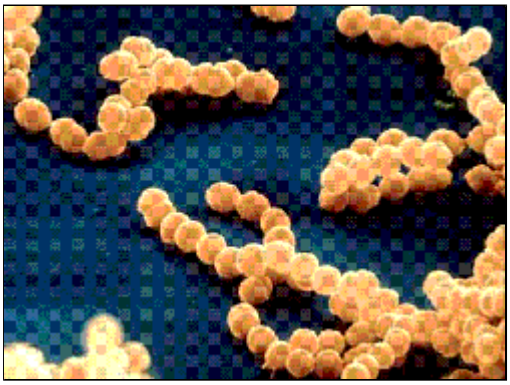
Epidemiology Corner

Meningitis

Meningitis is the inflammation of the lining of the brain and spinal cord. Fungi, bacteria and viruses are among the causes of infectious meningitis. Clinical illness is characterized by sudden onset of febrile illness, severe headache, stiff neck, muscle aches, photophobia, drowsiness, nausea and vomiting. These symptoms are more difficult to identify in babies. The vast majority of meningitis cases reported to the Houston Department of Health and Human Services are caused by viruses, especially enteroviruses (ECHOviruses and Coxsackieviruses).

Occasionally the Bureau of Epidemiology receives reports of viral meningitis caused by adenovirus, or herpes simplex virus. According to the Centers for Disease Control and Prevention, about 90 percent of viral meningitis are caused by enteroviruses. A rubella-like rash may characterize infections caused by these viruses. Active illness seldom exceeds 10 days. Transient paresis and encephalic manifestations may occur; paralysis is unusual. Recovery is usually complete with supportive nonspecific treatment.

Enteroviruses are found in respiratory secretions (sputum, saliva and nasal mucus) and stool of infected persons. They are spread by direct contact with these secretions. Incubation period is between three to seven days and people are infectious from three days after infection to about 10 days after symptoms start. Enteroviruses, like other viruses, commonly circulate throughout susceptible populations. In about one in every 250-400 infected persons it causes meningitis. Most infected persons develop immunity to specific viral serotype and a part of the population is susceptible to a newly circulating serotype. Infants under the age of six months are the most susceptible. Seasonal increases in viral meningitis occur in late spring and summer and early autumn It is difficult to prevent the spread of infection because most people who are infected with enteroviruses are asymptomatic. However, good personal hygiene especially hand washing is the most effective method of preventing infection if a person is in contact with someone who has viral meningitis.



Meningococcal meningitis is caused by Neisseria Meningitidis – a bacteria. This bacteria is not as common as viral meningitis or the other types of bacterial meningitis. When it occurs, rapid identification and treatment of the patient and their close contacts helps to control the infection. For the other types of meningitis, it is not necessary to treat close contacts of patients. Even though, bacterial meningitis can be more serious than viral meningitis causing disability or death if not properly treated. In the past 20 years, substantial progress has been made in the control of meningitis and its consequences. The rates of reported cases of streptococcal meningitis have fallen dramatically with the deployment of pneumococcal vaccines.

The delivery of effective vaccine against the bacteria Haemophilus influenza type b has lead to a decline of greater than 99% in the incidence of reported cases of bacterial meningitis compared to the pre-vaccine era. Antifungal treatments have reduced deaths due to the fungus cyptococcus neoformans which commonly affects persons with weakened cellular immune systems. In summary, meningitis in Houston currently is most likely to be associated with viral agents that run a benign clinical course.

Neisseria Meningitidis photo courtesy of Brown University For additional information: Bureau of Epidemiology, Houston Department of Health and Human Services. Telephone: 713 794 9181, Fax: 713 794 9182
www.cdc.gov/ncidod/dvrd/revb/enterovirus/viral_meningitis.htm

Make the most of your metabolism - boost fat-burning potential

"It's my metabolism!" Sound familiar? If you're carrying some extra pounds (and having a hard time losing them), it's tempting to put the blame on a sluggish metabolism. But is your metabolism really the reason it's often so hard to lose weight? And, more important, is there anything you can do about it? WebMD asked experts to explore facts and myths about metabolism -- and the good news is, there are things you can do to help boost your body's calorie-burning power. What Is Metabolism? Your metabolism, experts say, involves a complex network of hormones and enzymes that not only convert food into fuel but also affect how efficiently you burn that fuel." Read more of this article by Colette Bouchez WebMD Weight Loss Clinic at **http://www.webmd.com/content/article/117/112435.htm**. - *contributed by Dr. Cathy Troisi, Communicable Disease Division*

PREVIOUS PAGE | INDEX | NEXT PAGE